

A
Cont

an active layer, provided between said n-type and p-type nitride semiconductor layers, having a multi-quantum well structure having a well layer comprising a nitride semiconductor represented by $\text{In}_x\text{Ga}_{1-y}\text{N}$, $0 \leq y < 1$; and a p-type contact layer formed of a p-type GaN provided over said first p-type clad layer.

64. (New) A nitride semiconductor light-emitting device comprising:

an n-type layer comprising an n-type GaN or and n-type nitride semiconductor containing indium and gallium;

a first p-type clad layer comprising a p-type nitride semiconductor containing indium and gallium;

an active layer, provided between said n-type and p-type nitride semiconductor layers, having a multi-quantum well structure having a well layer comprising a nitride semiconductor represented by $\text{In}_x\text{Ga}_{1-y}\text{N}$, $0 \leq y < 1$;

a second p-type clad layer made of a p-type nitride semiconductor provided over said first p-type clad layer; and

a p-type contact layer formed of a p-type GaN provided over said second p-type clad layer.

65. (New) The device according to claim 69, wherein said p-type clad layer includes a first p-type layer comprising a p-type nitride semiconductor containing no aluminum provided over said active layer, and a second p-type layer comprising a p-type

nitride semiconductor containing aluminum and gallium provided over said first p-type layer.

66. (New) The device according to claim 71, further comprising a p-type contact layer formed of a p-type GaN provided over said second p-type clad layer, and an n-type contact layer formed of an n-type GaN and over which said second n-type clad layer is provided.

67. (New) A nitride semiconductor light emitting diode device comprising:
a substrate;
an n-type layer formed of n-type GaN provided over said substrate;
an active layer having a multi-quantum well structure including a well layer comprising a nitride semiconductor represented by $In_xGa_{1-x}N$, where $0 < x < 1$, and
barrier layer comprising a nitride semiconductor represented by $In_yGa_{1-y}N$, where $0 \leq y < 1$, said active layer being provided over said n-type layer;
a first p-type layer formed of p-type AlGaN provided over said active layer; and
a second p-type layer formed of p-type GaN provided over said first p-type layer.

68. (New) A nitride semiconductor light-emitting device comprising:
an n-type nitride semiconductor layer, said n-type nitride semiconductor layer comprising an n-type GaN or an n-type nitride semiconductor containing indium and gallium;

a p-type nitride semiconductor layer including a p-type clad layer, said p-type clad layer comprising a p-type nitride semiconductor containing aluminum and gallium and having a thickness within a range of 10 angstroms to 1.0 μm ; and

*Ans
Cont*

an active layer, provided between said n-type and p-type nitride semiconductor layers, having a multi-quantum well structure having a well layer comprising a nitride semiconductor represented by $\text{In}_x\text{Ga}_{1-x}\text{N}$, where $0 < x < 1$, and a barrier layer comprising a nitride semiconductor represented by $\text{In}_y\text{Ga}_{1-y}\text{N}$, where $0 \leq y < 1$.

69. (New) A nitride semiconductor light-emitting device comprising:
a first n-type clad layer comprising an n-type nitride semiconductor not containing aluminum;
a p-type clad layer comprising a p-type nitride semiconductor and having a surface region, said surface region comprising a p-type nitride semiconductor containing aluminum and gallium; and

an active layer, provided between said first n-type clad layer and said p-type clad layer, having a multi-quantum well structure including a well layer comprising a nitride semiconductor represented by $\text{In}_x\text{Ga}_{1-x}\text{N}$, where $0 < x < 1$, and a barrier layer comprising a nitride semiconductor represented by $\text{In}_y\text{Ga}_{1-y}\text{N}$, where $0 \leq y < 1$.

70. (New) A nitride semiconductor light-emitting device comprising:
an active layer having a multi-quantum well structure having a well layer comprising a nitride semiconductor represented by $\text{In}_x\text{Ga}_{1-x}\text{N}$, where $0 < x < 1$, and a

barrier layer comprising a nitride semiconductor represented by $\text{In}_y\text{Ga}_{1-y}\text{N}$, where $0 \leq y < 1$;

a negative electrode;

a positive electrode;

an n-type GaN contact layer in electrical contact with said negative electrode;

a p-type GaN contact layer in electrical contact with said positive electrode; and

a p-type clad layer provided between said active layer and said p-type GaN

contact layer, said p-type clad layer comprising a p-type nitride semiconductor containing aluminum and gallium.

71. (New) A nitride semiconductor light-emitting device comprising:

a first n-type clad layer comprising an n-type nitride semiconductor containing indium and gallium;

a first p-type clad layer comprising a p-type nitride semiconductor containing indium and gallium;

an active layer provided between said first n-type and p-type clad layers and having a multi-quantum well structure including a well layer comprising a nitride semiconductor represented by $\text{In}_x\text{Ga}_{1-x}\text{N}$, where $0 < x < 1$, and a barrier layer comprising a nitride semiconductor represented by $\text{In}_y\text{Ga}_{1-y}\text{N}$, where $0 \leq y < 1$;

a second n-type clad layer comprising an n-type nitride semiconductor containing aluminum and gallium, said second n-type clad layer having a larger band gap than said first n-type clad layer, said first n-type clad layer being provided over said second n-type clad layer; and